

Appl. No. 10/731,042
Amtd. Dated , 2005
Reply to Office Action of Apr. 22, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A light guide plate comprising:
a transparent plate comprising an emitting surface; and
a plurality of diffusing protrusions provided evenly on the emitting surface of the transparent plate and integrated with the transparent plate;
wherein the diffusing protrusions are hemispherical or sub-hemispherical, and a diameter of each diffusing protrusion is in the range from 10 μ m~50 μ m.

Claim 2 (original): The light guide plate as recited in claim 1, wherein the transparent plate is generally a flat panel or generally cuneiform.

Claim 3 (original): The light guide plate as recited in claim 1, wherein the diffusing protrusions are made of organic material.

Claim 4 (original): The light guide plate as recited in claim 3, wherein the diffusing protrusions are made of polymethyl methacrylate (PMMA), polycarbonate or metallocene Cyclic Olefin Copolymer (mCOC).

Claim 5 (original): The light guide plate as recited in claim 1, wherein the transparent plate is made of a transparent synthetic resin or glass.

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Claim 6 (currently amended): The light guide plate as recited in claim 1, wherein ~~the diffusing protrusions are hemispherical or sub-hemispherical, and an arc of any orthogonal cross-section of each diffusing protrusion subtends an angle in the range from 90~180°.~~

Claim 7 (canceled)

Claim 8 (original): The light guide plate as recited in claim 1, wherein the diffusing protrusions are evenly distributed on the emitting surface of the transparent plate.

Claim 9 (original): The light guide plate as recited in claim 1, further comprising a plurality of dots distributed on a bottom surface of the transparent plate.

Claim 10 (original): The light guide plate as recited in claim 9, wherein the dots are evenly distributed on the bottom surface of the transparent plate.

Claim 11 (withdrawn): A method for fabricating a light guide plate, comprising the steps of:

 fabricating a mother mold;
 forming a cavity in the mother mold;
 forming a plurality of holes under the cavity; and
 fabricating a light guide plate using the mold with the cavity.

Claim 12 (withdrawn): The method for fabricating a light guide plate as recited in claim 11, wherein a material of the light guide plate is filled in the holes, and the material is organic.

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Claim 13 (withdrawn): The method for fabricating a light guide plate as recited in claim 12, wherein the material filled in the holes is polymethyl methacrylate (PMMA), polycarbonate or metallocene Cyclic Olefin Copolymer (mCOC).

Claim 14 (withdrawn): The method for fabricating a light guide plate as recited in claim 11, wherein the step of fabricating the light guide plate is performed by way of integrated molding.

Claim 15 (withdrawn): The method for fabricating a light guide plate as recited in claim 11, further comprising the step of forming a plurality of dots on a surface of the light guide plate.

Claim 16 (withdrawn): The method for fabricating a light guide plate as recited in claim 15, wherein the dots are formed by a printing process, chemical etching, or mechanical pressing.

Claim 17 (withdrawn): The method for fabricating a light guide plate as recited in claim 11, wherein the holes are hemispherical or sub-hemispherical, and an arc of any orthogonal cross-section of each hole subtends an angle in the range from 90~180°.

Claim 18 (withdrawn): The method for fabricating a light guide plate as recited in claim 11, wherein a diameter of each hole is in the range from 10μm~50μm.

Claim 19 (withdrawn): A method of making a light guide plate, comprising steps of providing an injection mold and making a light guide

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plate from said injection mold via an injection molding process wherein said light guide plate defines two opposite main surfaces and at least one of said two opposite main surfaces is shaped with a plurality of spaced projections integrally formed thereon under a condition that said spaced projections are configured to perform diffusion functions.